

Attorney Docket: HATO.2109.0001
Application Serial No. 09/901,069

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus to control an inclined angle of an AV front panel with respect to an AV rear panel by means for converting a driving force of an incline angle controlling motor into a linear movement, comprising:

an inclining unit to transfer a rotational force to the AV front panel to incline the AV front panel such that a top portion of the AV front panel inclines toward the inclining unit;

a rotation transmitting unit to transfer a rotational force of a motor to the inclining unit to incline the AV front panel; and

an opening and closing unit to couple with the inclining unit to open and close the AV front panel in response to a combination of the transferred rotational force of the rotation transmitting unit and the linear movement of the converting means,

wherein the converting means includes a slide plate coupled at a first end to a base portion of the AV front panel to control a horizontal movement of the AV front panel.

2. (Previously Presented) The apparatus as set forth in claim 1, wherein the rotation transmitting unit comprises:

a worm fixed to the motor by a shaft, such that the motor rotates the worm to open and close the front panel by rotating in first and second directions, respectively;

a worm gear engaged with the worm and having a concentric sub-gear integrally formed thereat; and

a gear engaged with the worm gear.

3. (Previously Presented) The apparatus as set forth in claim 2, wherein the inclining unit comprises a sector gear engaged with the gear of the rotation transmitting unit and having a protrusion at its side.

4. (Previously Presented) The apparatus as set forth in claim 2, wherein: the opening and closing unit comprises an arm link, comprising:

Attorney Docket: HATO.2109.0001
Application Serial No. 09/901,069

a guide hole with an opening at a first end thereof,
a long hole to receive a shaft of the gear of the rotation transmitting unit therein
such that the arm link is rotatable about the shaft and slidable on the shaft, and
a pin hingedly connected to an upper part of the front panel; and
the AV rear panel comprises an upright trajectory hole having an opening at its lower end
such that the pin of the arm link enters the opening and slides along the upright trajectory hole.

5. (Currently Amended) An apparatus to control a movement of an AV front panel
with respect to a stationary AV rear panel, comprising:
an arm link rotatably fixed to the AV front panel at a first end thereof to direct the movement
of the AV front panel along a predetermined trajectory and to slide along a fixed axis and rotate
thereabout at a second end thereof;
an inclining unit to control a rotation of the arm link;
a transmitting unit to transmit a first rotational force to the inclining unit; and
a converting unit to control an angle of inclination of the AV front panel, such that a top
portion of the AV front panel inclines toward the inclining unit, and comprising a slide plate coupled
at a first end to a base portion of the AV front panel to control a horizontal movement of the AV front
panel.

6. (Previously Presented) The apparatus of claim 5, wherein the transmitting
unit comprises:

a rotating gear to rotate in a first rotational direction to cause the inclining unit to couple to
the arm link such that the arm link rotates along the fixed axis in the first rotational direction.

7. (Previously Presented) The apparatus of claim 6, wherein:
the inclining unit comprises a rotatable sector gear with a protrusion at a periphery thereof;
and

the arm link comprises a protrusion guide to engage with the protrusion at a predetermined
rotational junction of the sector gear and the arm link in order to continue the rotation of the arm link
in the first rotational direction.

8. (Previously Presented) The apparatus of claim 5, wherein:
the stationary AV rear panel comprises a trajectory hole formed along the predetermined

Attorney Docket: HATO.2109.0001
Application Serial No. 09/901,069

trajectory at a side portion thereof; and

the arm link comprises a trajectory pin to move within the trajectory hole to direct the movement of the arm link and the AV front panel.

9. (Previously Presented) The apparatus of claim 8, wherein the trajectory pin disengages from the trajectory hole at a predetermined point to allow the AV front panel to move to a position parallel to the stationary AV rear panel.

10. (Previously Presented) The apparatus of claim 5, wherein the converting unit comprises:

a slide plate to linearly reciprocate along a horizontal axis to control the angle of inclination of the AV front panel;

a plurality of gears to control the reciprocating movement of the slide plate; and

a motor to transfer a second rotational force to the plurality of gears.

11. (Previously Presented) The apparatus of claim 10, wherein the horizontal axis of the slide plate is perpendicular to the AV front panel in a closed position and parallel to the AV front panel in an open position.